

METHOD AND STRUCTURE FOR PRODUCING HIGH PERFORMANCE LINEAR ALGEBRA ROUTINES USING PRELOADING OF FLOATING POINT REGISTERS

ABSTRACT

A method (and structure) for executing linear algebra subroutines, includes, for an execution code controlling operation of a floating point unit (FPU) performing the linear algebra subroutine execution, unrolling instructions to preload data into a floating point register (FReg) of the FPU. The unrolling generates an instruction to load data into the FReg and the instruction is inserted into a sequence of instructions that execute the linear algebra subroutine on the FPU.